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4. (Unchanged) The method of claim 1 further comprising running, by a user, a query based on membership in the relation

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5. (New) A computer-readable medium having executable instructions to cause a computer to perform a method comprising:

writing a description between entities in an audio visual sequence, the description containing relations;

determining the relations for representation by parameters, each parameter having a numerical value; and

obtaining for each parameter at least one of

the numerical value,

- a description of the parameter containing the numerical value, and a description capable of setting the parameter dynamically.
- 6. (New) The computer-readable medium of claim 5, wherein the method further comprises:

combining a State DS (description scheme) with an additional field in a GraphType DS.

- 7. (New) The computer-readable medium of claim 5, wherein combining allows a set of parameters to determine a strength of an edge that is a fuzzy member of a relation defined by edges on a set of vertices.
- 8. (New) The computer-readable medium of claim 5, wherein the method further comprises:

performing a query based on membership in one of the relations.

9. (New) A method of weighting a fuzzy relation between description schemes in a content description for a multimedia sequence comprising:

dynamically deriving a confidence value for the fuzzy relation from a parameter associated with one of the description schemes, the confidence value representing a degree to which the fuzzy relation is a member of a subset of relations among the description schemes.

- 10. (New) The method of claim 9, wherein the parameter is an attribute value.
- 11. (New) The method of claim 9, wherein the confidence value is further dynamically derived from a set of parameters associated with the description schemes.
- 12. (New) The method of claim 9 further comprising:
  modifying the confidence value in response to changes in the parameter as the multimedia sequence progresses.
- 13. (New) The method of claim 9, wherein the description schemes represent entities in the multimedia sequence, the fuzzy relation represents a relationship between the entities, and the confidence value represents a state of the relationship.
- 14. (New) The method of claim 13 wherein the state of the relationship is described by a state description scheme that specifies the parameter.
- 15. (New) The method of claim 9 further comprising:
  associating the description schemes with a set of vertices in a graph and the subset of relations with a set of edges among the set of vertices; and

calculating the confidence value of the fuzzy relation using a membership function based on graph mapping.

16. (New) The method of claim 15, wherein the membership function is  $m_R(x) = g \circ f(x)$ , where R is the set of edges over the set of vertices A x B, g defines a function for the parameter over a parameter space PS, and f is a parameterization function  $f: A \times B \to PS$ , g: PS.

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17. (New) The method of claim 15 further comprising:
writing the graph without the edge representing the fuzzy relation if the confidence value is zero.

18. (New) A computer-readable medium having executable instruction to cause a computer to perform a method comprising:

dynamically deriving a confidence value for a fuzzy relation between description schemes from a parameter associated with one of the description schemes, the confidence value representing a degree to which the fuzzy relation is a member of a subset of relations among the description schemes in a content description for a multimedia sequence.

- 19. (New) The computer-readable medium of claim 18, wherein the parameter is an attribute value.
- 20. (New) The computer-readable medium of claim 18, wherein the confidence value is further dynamically derived from a set of parameters associated with the description schemes.
- 21. (New) The computer-readable medium of claim 18, wherein the method further comprises:

modifying the confidence value in response to changes in the parameter as the multimedia sequence progresses.

22. (New) The computer-readable medium of claim 18, wherein the description schemes represent entities in the multimedia sequence, the fuzzy relation represents a relationship between the entities, and the confidence value represents a state of the relationship.

23. (New) The computer-readable medium of claim 22, wherein the state of the relationship is described by a state description scheme that specifies the parameter.

24. (New) The computer-readable medium of claim 18, wherein the method further comprises:

associating the description schemes with a set of vertices in a graph and the subset of relations with a set of edges among the set of vertices; and

calculating the confidence value of the fuzzy relation using a membership function based on graph mapping.

- 25. (New) The computer-readable medium of claim 24, wherein the membership function is  $m_R(x) = g \circ f(x)$ , where R is the set of edges over the set of vertices A x B, g defines a function for the parameter over a parameter space PS, and f is a parameterization function  $f: A \times B \to PS$ , g: PS.
- 26. (New) The computer-readable medium of claim 24, wherein the method further comprises:

writing the graph without the edge representing the fuzzy relation if the confidence value is zero.

And.